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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/036,200	10/19/2001	Norman Ken Ouchi		2842

41212 7590 05/05/2006

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EXAMINER

CHOI, PETER H

ART UNIT PAPER NUMBER

3623

DATE MAILED: 05/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/036,200	Applicant(s) OUCHI, NORMAN KEN	
	Examiner Peter Choi	Art Unit 3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 16 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following is a **FINAL** office action upon examination of application number 10/036,200. Claims 21-39 are pending in the application and have been examined on the merits discussed below.

Response to Amendment

2. Applicant has canceled claims 1-20 and added new claims 21-39.

Abstract

3. The objection to the abstract is withdrawn in view of the amended abstract submitted February 16, 2006.

Claim Rejections - 35 USC § 112

4. The rejection of claims 1-20 raised under 35 USC § 112 in the Office Action mailed November 23, 2005 is withdrawn in view of cancellation of claims 1-20.

Claim Rejections - 35 USC § 103

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5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 21-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Du et al. (U.S. Patent #5,826,239).

As per claim 21, Du et al. teaches a method for coordinating a first level route directed workflow and a second level route directed workflow using an object step, the method comprising:

(a) defining a first object step (**representing process activities in business objects to create new workflow processes by assembling business objects to describe workflow processes**) encapsulating a first route segment (**business object is a representation of something active in the business domain, including its business name and definition, attribute, behavior and constraints. It provides a uniform way to encapsulate legacy systems and applications and a direct mapping, in understandable business terms, between the business model and the possibly sophisticated operational procedures of the workflow process system**), a sequence of steps (**each workflow process includes a sequence of activities**) to be connected to other route segments (**some aspects of the workflow process can be preplanned and deliberately structured; parts of the workflow process**

involving certain departments can be preplanned) [Column 6, lines 40-41, Column 7, lines 11-17, Column 10, lines 23-34];

(b) **defining a first level workflow means directed by an object route (the specific structure and flow of each workflow process can be preplanned; parts of the workflow process involving certain departments can be preplanned; a workflow process is a description of the sequencing, timing, dependency, data, physical agent allocation, business rule and organization policy enforcement requirements of business activities needed to enact work), a sequence of object steps** [Column 7, lines 4-5 and 16-17, Column 8, lines 11-15, Figure 7];

(c) **defining a second level workflow means directed by a route (the specific structure and flow of each workflow process can be preplanned; parts of the workflow process involving certain departments can be preplanned; a workflow process is a description of the sequencing, timing, dependency, data, physical agent allocation, business rule and organization policy enforcement requirements of business activities needed to enact work), a sequence of steps** [Column 7, lines 4-5 and 16-17, Column 8, lines 11-15, Figure 7];

(d) **defining a first object route, a sequence of object steps (each workflow process includes a sequence of activities; workflow process is specified by the process design modules via the workflow process definition interface), including the first object step** [Column 6, lines 40-41, Column 7, lines 59-67, Figure 7];

(e) **forming a first route from the first object route by connecting the route segments encapsulated in each object step, including the first route segment, in the**

sequence of the object steps of the first object route (**workflow process is represented as a directed graph consisting of a set of nodes connected by arcs; work nodes represent activities to be performed and rule nodes are used to specify workflow processes that are more complex than a simple sequence**)

[Column 8, lines 15-17, 45-47, and 59-61, Figure 7];

(f) providing the first object route to direct the first level workflow means **{the workflow process represented by Figure 7 is “provided”, or applied to the HP OpenPM engine}** [Figure 7, Column 9, lines 36-43];

(g) providing the first route to direct the second level workflow means, such that when the first level workflow starts the first object route, the second level workflow starts the first route and when the second level workflow completes the first route, the first level workflow completes the first object route **{the workflow process represented by Figure 7 is “provided”, or applied to the HP OpenPM engine}** [Figure 7, Column 9, lines 36-43].

As per (b) and (c), Du et al. does not explicitly teach the inclusion of an ERP or shopfloor system in the definition of workflow.

However, Official Notice is taken that workflow can be applied to a plurality of work processes, including manufacturing and production. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Du et al. to define workflows for a shopfloor system and an ERP system, because the

resulting combination would enable companies to define sequences of tasks and activities contributing towards the accomplishment of a process while keeping track of resource status and assigning available resources to tasks.

As per claim 22, Du et al. teaches the method of claim 21, wherein a second object step encapsulating a second route segment follows the first object step in the sequence of object steps of the first object route (**forward arcs represent the normal execution flow of process activities and form a directed acyclic graph. Successful completion of a node at the source end of a forward arc triggers the starting of the node at the destination end of the forward arc; also see the arrow pointed connections linking each of the rule nodes and work nodes**) and the second route segment provides a feedback connection to the first route segment in forming the second route (**reset arcs are used to support repetitions or explore alternatives in a workflow process. Reset arcs differ from forward arcs in that they reach backwards in the process graph; also see the dashed connection between rule nodes R3, R6 and R7 in Figure 7**) [Column 8, lines 26-34, Figure 7].

As per claim 23, Du et al. teaches the method of claim 21 wherein the first object step encapsulates a third route segment as an alternative route segment such that either the first route segment or the third route segment is selected when forming the first route {**in Figure 7, rule node 3 may be proceeded by either rule node 2 or work node 4**} [Figure 7].

As per claim 24, Du et al. teaches the method of claim 21 wherein the first route segment can indicate to the first object step when the first route segment begins directing the second level workflow **{at rule node 8, the first route segment is completed and event 3 (138) is raised, which leads to the beginning of 124}** [Figure 7].

As per claim 25, Du et al. teaches the method of claim 21 wherein the first route segment can indicate to the first object step when the first route segment completes directing the second level workflow **{rule module 6 is executed after work module 9}(status information of each process instance and load information can be queried using the process status monitor modules via the process status monitoring interface)** [Figure 7, Column 7, lines 59-67].

As per claims 26-28, Du et al. teaches the step of querying status information of each process instance and load information by using the process status modules via the process status monitoring interface [Column 7, lines 63-67].

Du et al. does not explicitly teach the use of barcode and radio frequency identifiers. However, Official Notice is taken that it is old and well known in the art that bar code readers and radio frequency (RFID) tags are amongst the plurality of input/output devices that are used in business procedure. Bar codes and RFID tags are

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beneficial in that they enable companies to track, manage, and monitor the real-time status of and whereabouts of inventory, especially in the manufacturing process. They also give valuable information about the quantity of products being bought or received. Therefore, one of ordinary skill in the art at the time of invention would modify the teachings of Du et al. to include barcodes and radio frequency identifiers to obtain the benefits of said identifiers to track, manage and monitor the real-time status of inventory within established workflow processes.

Claims 29-39 recite limitations already addressed by the rejection of claim 21-28 above; therefore, the same rejection applies.

In addition, as per claim 33, Du et al. provides a system and method for distributed resource management in a computer network that includes multiple computers operating under control of workflow management software systems [Column 4, lines 38-43]. Du et al. also implements the HP OpenPM workflow management system, an open, enterprise-capable, object-oriented workflow process management system to manage business activities that support complex enterprise processes in a distributed, heterogeneous computing environment [Column 7, lines 24-29]. The core of the HP OpenPM system is the HP OpenPM engine, which enable the HP OpenPM engine to interact with workflow process designer, workflow process instance execution, workflow process monitor, resource management and business object management modules [Column 7, lines 45-52].

Du et al. is not explicitly implemented via the Internet. However, Official Notice is taken that it is old and well known in the art to connect a plurality of networked computers to the Internet. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Du et al. to include the use of the Internet, as the resulting combination would enable the management of workflow amongst a plurality of distinct and remotely located business organizations whose activities are performed in parallel, and would also provide global communication amongst said business organizations.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Choi whose telephone number is (571) 272 6971. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PC

April 28, 2006


Peter Choi
Examiner
Art Unit 3623
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